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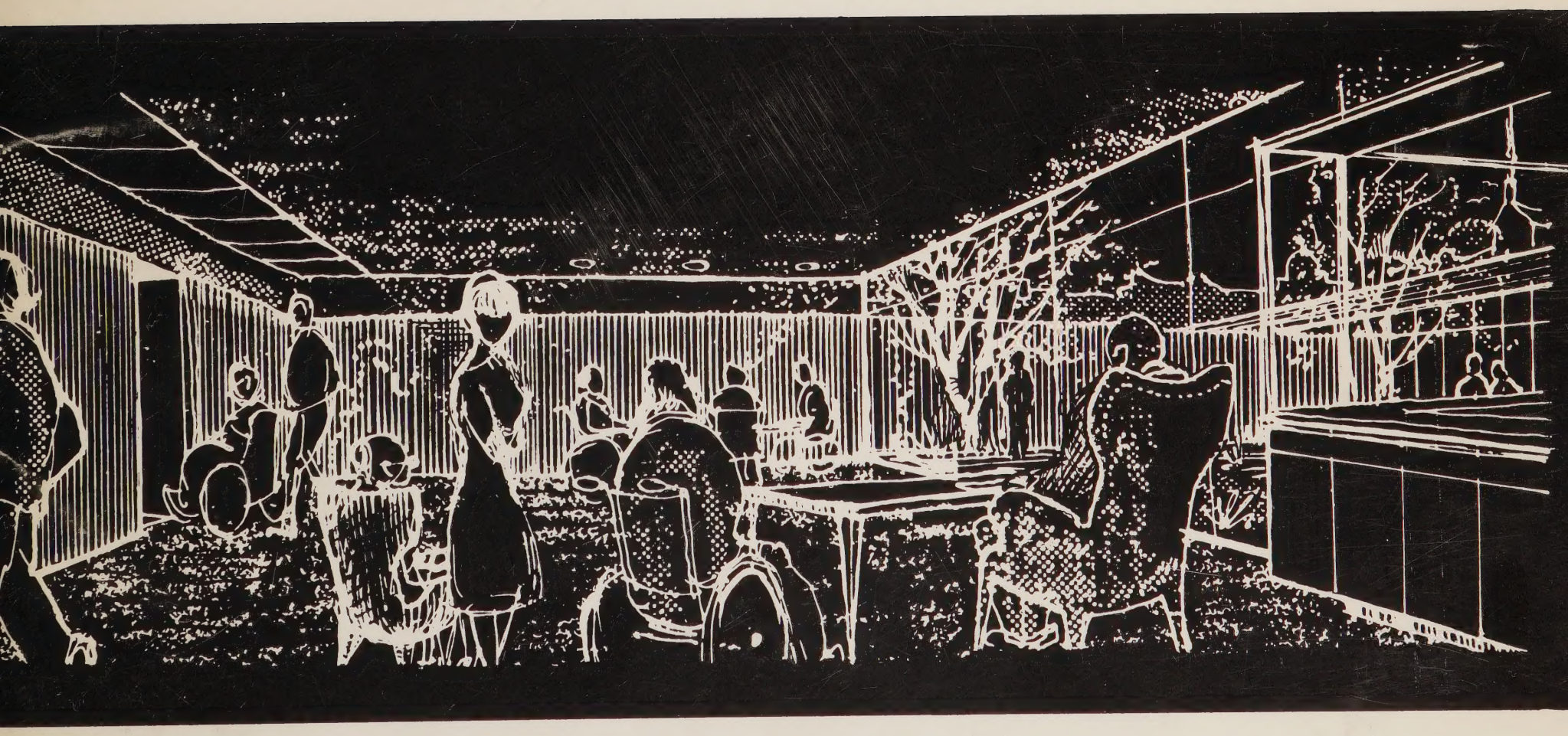

Scottish Hospital Centre

February 1972

WARD UNITS FOR PHYSICALLY AND MENTALLY HANDICAPPED

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INTRODUCTION

Whilst there is now a great deal of authoritative guide material on the design of hospital wards and departments much of this relates to acute units. In recent years, however, there has been increasing concern with the problems of long stay hospitals. At the Scottish Hospital Centre a continuing interest has been shown in these hospitals and conferences, exhibitions and hospital visits have been arranged.

This study relates to the design of ward units for a group of mental defective patients who are likely to remain the responsibility of the hospital service for the foreseeable future; this group represents no more than 40% of the current population in mental defective hospitals in Scotland. The principles of planning set out in the document should be applicable to new building and to existing buildings which may be the subject of upgrading.

The work was undertaken by a multi-professional team comprising: Medical Officer, Dr. A.M. Anderson; Nursing Officer, Miss J. Mander; Architect, Mr. A.N. Simpson. The team gratefully acknowledge the help received from many officers of the hospital service and in particular from the staff of the ward units in which the studies were carried out.

PART I : BACKGROUND

1.1 Many old and some newer ward units in mental deficiency hospitals in Scotland do not satisfy the needs of the patients, nurses, doctors and auxiliary staff. Some are grossly inadequate and out of date. Nurse charges of 60 beds with dormitory accommodation arranged in open ward form, and with no attempt to provide a rational arrangement of nurse working rooms, do not offer satisfactory accommodation for patients or staff, and some of the sanitary facilities are so unsatisfactory that few would choose to use them.

1.2 With regard to accommodation for the mentally defective, until recently with the publication of the report *"Buildings for mentally handicapped people"*[1] there has been insufficient guide material based on recent experience and the objective analysis of functional requirements. When an opportunity of building anew arises, this lack of authoritative guide material becomes apparent and may result in designs which fail to reflect basic ward planning requirements. Similar problems arise when attempts are made to upgrade structurally sound but inconvenient ward units in existing hospitals.

1.3 It was felt that the detailed study of ward units which led to *Hospital Planning Note No 1 "Ward Design"*[2] should be paralleled in the long-stay field. Following visits to a number of these hospitals for geriatric, psychiatric, young chronic sick and mentally defective patients, it was decided that in the first instance studies should be undertaken in units which catered for low-grade physically handicapped mentally defective adults and children. In this way it was hoped that design guidance could be made available for new and upgraded accommodation for a group of patients who were highly nurse dependent and most likely to remain the responsibility of the Hospital Service for an indefinite period.

1.4 At an early stage it was recognised that in practice those patients who constituted the heaviest nursing load tended to be mixed with other patients who were less nurse dependent, particularly where there were large nursing charges. For the future, even if nursing charges were to be limited to 30 beds, it seems unlikely that all the physically handicapped low-grade patients will be concentrated in one or more such charges in a hospital. Some degree of mixing is almost certain to take place.

1.5 With a view to obtaining information about the mixture of patients, a survey was carried out of ward units in mental deficiency hospitals in Scotland which accommodated low-grade patients, not less than 10% of whom were physically handicapped. The survey, which formed the first stage of the study, was based on a structured questionnaire to obtain information about the nursing and other characteristics of 3,200 patients in 82 ward units in Scottish hospitals. The questionnaire, a copy of which together with the instructions for its completion is at Appendix A, was completed by senior nursing staff at the hospitals concerned, and the nursing officer member of the study team was available to answer any queries or clear points of difficulty as they arose. A summary of the detailed information collected for each patient is at Annex 3 to Appendix A.

1.6 The survey covered ward units of two distinct size groupings and the material is presented accordingly. It relates to patient characteristics from units of 18–41 patients and units of 42–65 patients. Following the ward studies referred to in Part 2 of this document, the maximum charge size envisaged for the future is 30 beds, and therefore for planning purposes more significance is attached to the material from the smaller than the larger units. In the undernoted data the percentage relating to smaller ward units is featured while the corresponding figure from larger units is bracketed. Information is presented separately for children, adult males and adult females and only those patient characteristics which are considered of importance in relation to living accommodation requirements are listed.

1 Department of Health and Social Security. *Buildings for mentally handicapped people.* London, HMSO, 1971.

2 Scottish Home and Health Department. *Ward design.* Edinburgh, HMSO, 1963.

1.7 **Children 0–15**

	Mixed 707 Children Percentage	
Ambulant (some with help)	53	(52)
Chairfast	25	(21)
Bedfast	22	(27)
Doubly incontinent (by night)	80	(93)
Cannot use assisted W.C.	54	(76)
Require feeding or help with feeding	74	(79)
Require dressing or help with dressing	89	(99)
Wash own hands and face	9	(1)
Attend school/sensory training or occupational therapy	21	(17)
Occupation in ward	4	(8)
Regular medication	57	(54)
Passive temperament	43	(40)
Aggressive temperament	16	(16)
Self destructive	8	(13)
Overactive	15	(8)
Attention seeking	23	(14)
Problem at night	7	(21)
Blind or partially sighted	14	(21)

1.8 **Adults 16+**

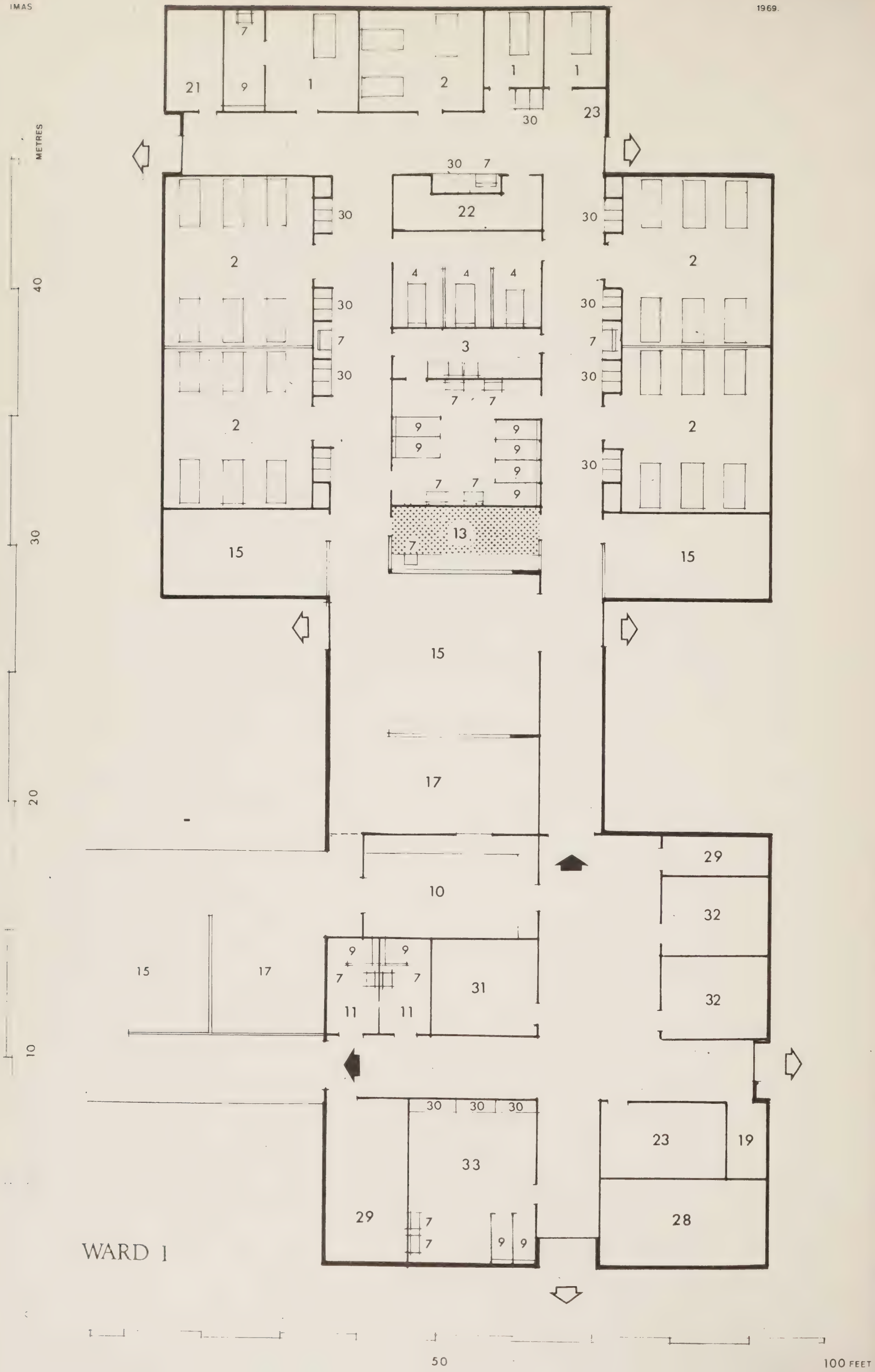
	Male 1162 patients Percentage		Female 1273 patients Percentage		Mixed 66 patients Percentage
Ambulant (some with help)	86	(90)	83	(89)	63
Bedfast	6	(2)	5	(2)	9
Doubly incontinent (by night)	27	(22)	35	(26)	46
Cannot use assisted W.C.	14	(8)	14	(7)	38
Require feeding or help with feeding	26	(16)	35	(27)	64
Require dressing or help with dressing	54	(42)	70	(56)	68
Wash own hands and face	43	(56)	42	(45)	32
Attend school/sensory training or occupational or industrial therapy	35	(21)	34	(21)	51
Occupation in ward	17	(6)	11	(5)	6
Works in ward (own or other)	12	(23)	11	(16)	12
Regular medication	50	(55)	70	(65)	71
Passive temperament	48	(51)	35	(52)	48
Aggressive temperament	25	(28)	36	(31)	31
Self destructive	11	(11)	21	(13)	15
Overactive	17	(7)	16	(9)	23
Attention seeking	22	(18)	30	(23)	32
Problem at night	7	(9)	17	(6)	15
Blind or partially sighted	7	(8)	18	(8)	23
Heavy (of those who are chair or bedfast only)	27	(60)	40	(22)	33

PART 2 : STUDIES IN FOUR WARD UNITS

2.1 The older ward units in mental deficiency hospitals in Scotland reflect both the principles of ward design and the attitudes of the time when they were built to this type of patient care. Most bed complements are far in excess of what would be acceptable today. Few show a rational approach to the provision of ancillary and nurse working rooms. The beds are generally in open wards with minimal provision for patients' personal belongings and clothes. Two-storey building is not uncommon, and there is little in the way of special provision for dealing with the physically handicapped or incontinent patient. Many of these criticisms can also be applied to ward units built since 1950 and, with a few exceptions, it is only in the two most recently constructed hospitals in Scotland that the charge size has been reduced to 30 patients or less; an attempt has been made to group patients in smaller rooms or bays; and divided day accommodation has been provided.

2.2 Following the Centre's preliminary assessment at a number of hospitals, four ward units were selected for detailed study in order to obtain information about ward activity. Two of the units were in a recently built hospital, one was some years older and the fourth was in a building constructed 35 years ago to accommodate 60 patients (but now accommodating 32 patients). In this way detailed information was obtained about a range of ward units accommodating low-grade physically handicapped adults and children of both sexes.

2.3 The design and equipment of ward units and the room relationships affect the work of nurses directly and continuously. The direct observation of nurses' work is an effective way of reaching an objective functional assessment of the unit. Continuous observations in these four units were carried out by an extended team of observers over a period of one day shift, and in addition one ward unit was studied during a night shift. The observations are recorded in the following paragraphs and are related in each case to a plan of the particular ward. There is a brief account of activity in the particular ward during the period under study.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WARD 1

WARD 1 – 7.30 am – 1 pm

30 beds – single storey – deep plan design – 7 nurses (1 sister, 1 student nurse and 5 nursing assistants) – 30 children – 4 day patients.

Patient Information

Mobility
5 bedfast
6 lay prone on mat
12 supported in chair
7 ambulant

Age
1 less than 2 years
4 2–4
21 5–11
4 12 and over (one was 19)

Incontinence
1 toilet trained
11 toilet training } changed flat
18 doubly incontinent } changed flat

Occupation
12 played in the ward

Feeding
3 fed themselves
27 fed by spoon and attendant

Diet
8 on solid/soft food
22 on liquid food

Factors affecting handling
13 heavy
11 stiff or angular

Temperament
1 active
29 passive

Nursing procedures
21 on oral medication
No technical nursing procedures

Pattern of Activity

A planning assumption was that all patients would be out of bed and remain in the day areas or dining areas throughout daytime hours. In practice patients were cared for in 2 groups, those who played or stayed in the day area and a smaller group of 5 totally bedfast children who remained in a 6-bed room and received continuous basic nursing care – feeding, changing, bathing, attention to pressure areas and oral hygiene. Nurses made frequent journeys to these patients, entering the room to supervise the children, all of whom were liable to choke.

For the non-bedfast patients a cycle of nursing activity commenced with getting them out of bed and finished with bathing and putting them back to bed. Within this cycle a smaller cycle was repeated consisting of dressing, placing in a chair or on a mat, feeding, changing, dressing, training and playing, feeding and so on. During the morning the nursing staff were joined by a 'play lady' who helped entertain and train some of the children in one of the day areas.

Comments on the plan are given as they affect the three main users, the patient, the nurse and the doctor.

For the Patient

1 The 6-bed and single rooms for the patients gave a substantial degree of privacy and amenity. While the bedside lockers allowed storage of personal belongings and clothing in relation to each patient's bed, the provision of wardrobe accommodation in the corridor wall precluded the fitting of a glazed strip for observation. These wardrobes would have been better sited adjacent to the patients' beds.

2 The 6-bed room in which 5 severely handicapped children received basic nursing care, while separate from the day area, was designed and sited in such a way that supervision was difficult unless a separate nursing team undertook their care.

3 The dining area was inadequate in size for the number of patients who should have been accommodated in it, together with the necessary nursing staff; this resulted in a number of patients being fed in a day area.

4 There was need for a secure sheltered external play area in which the children could play unattended.

5 The washing, changing and W.C. area was equipped with 8 wash basins and 6 W.Cs. but only one child could use a W.C. independently. 29 of the children were doubly incontinent, but because there were no safe and convenient facilities for undressing, washing and redressing them, their changing had to take place in the area immediately adjacent to the W.C. compartments. Thus, wheelchair access to this area was impractical, and there was insufficient space for trolleys and storage of washing materials and toothbrushes.

6 The bedfast patients were taken to the bathroom on a trolley on which they were undressed and dressed. Space for dressing and drying was insufficient, there were no laying surfaces for clean towels, linen and toilet powders, and wheelchair access was difficult. The hip bath was seldom used, and the partitions between the baths were unnecessarily high for the limited amount of privacy necessary for these children.

For the Nurse

1 Nursing journeys were increased and the amount of care possible for all the patients reduced by the siting and detailed design of the 6-bed room in which the bedfast children were accommodated (see sub-paragraph 2 above).

2 Linen, clothing, disposables and other materials were stored at a number of places at a distance from the point of use. There was a need for a concentration of storage arrangements in one nurse working room.

3 The ward kitchen and certain of the storage accommodation for outdoor clothing, prams etc. was shared by two 30-bed ward units – a satisfactory arrangement.

4 There were staff W.Cs. and cloakrooms in the central area serving two 30-bed units, also a satisfactory arrangement.

5 The grouping of two independent 30-bed charges with certain shared service rooms made for easier interchange of nursing staff at night.

For the Doctor

1 Consultation with nursing staff took place in the nurses' duty room where records were kept.

2 There were adequate facilities for examination of patients.

WARD 1 – Night Duty

29 patients, 1 nurse with assistance as required from another in the adjacent 30-bed ward.

Pattern of Activity

At 8 pm all but 2 of the children were in bed. Nurse had an oral report from Sister following which she visited each bedroom in turn. The 2 patients still up were given drinks and biscuits and one was taken to his bedroom. The second had his hands and face washed and was then put to bed. These children got up again later, one being put to bed twice and the second seven times.

At 9 pm 2 trolleys were set for the changing round. The first contained equipment for washing patients and the second fresh linen. At 11 pm nurse was joined by another from Ward 3 and both set out to inspect the children and change those who had been incontinent. The round took 1½ hours; 17 children were changed, 13 of whom were wet and 4 soiled. At 1 am nurse prepared a meal for herself and her colleagues in the adjacent ward unit; this was eaten in the ward dining-room. During the break several journeys were made to inspect the children. The second changing round began at 3 am and lasted 40 minutes: 9 children were wet. After this, nurse washed plastic pants, cleaned shoes and at 4.30 am had a break for coffee. At 5.45 am the final changing round began; this occupied 1¼ hours and 14 children were changed – 11 wet and 3 soiled. The last half hour of the shift was spent in tidying up and writing the night report. The first members of the day shift coming on duty at 7 am got the children out of bed and dressed them.

For the Patient

1 Some disturbance to patients was caused by a number of the children in this ward unit and in the adjacent unit who took some time to settle to sleep.

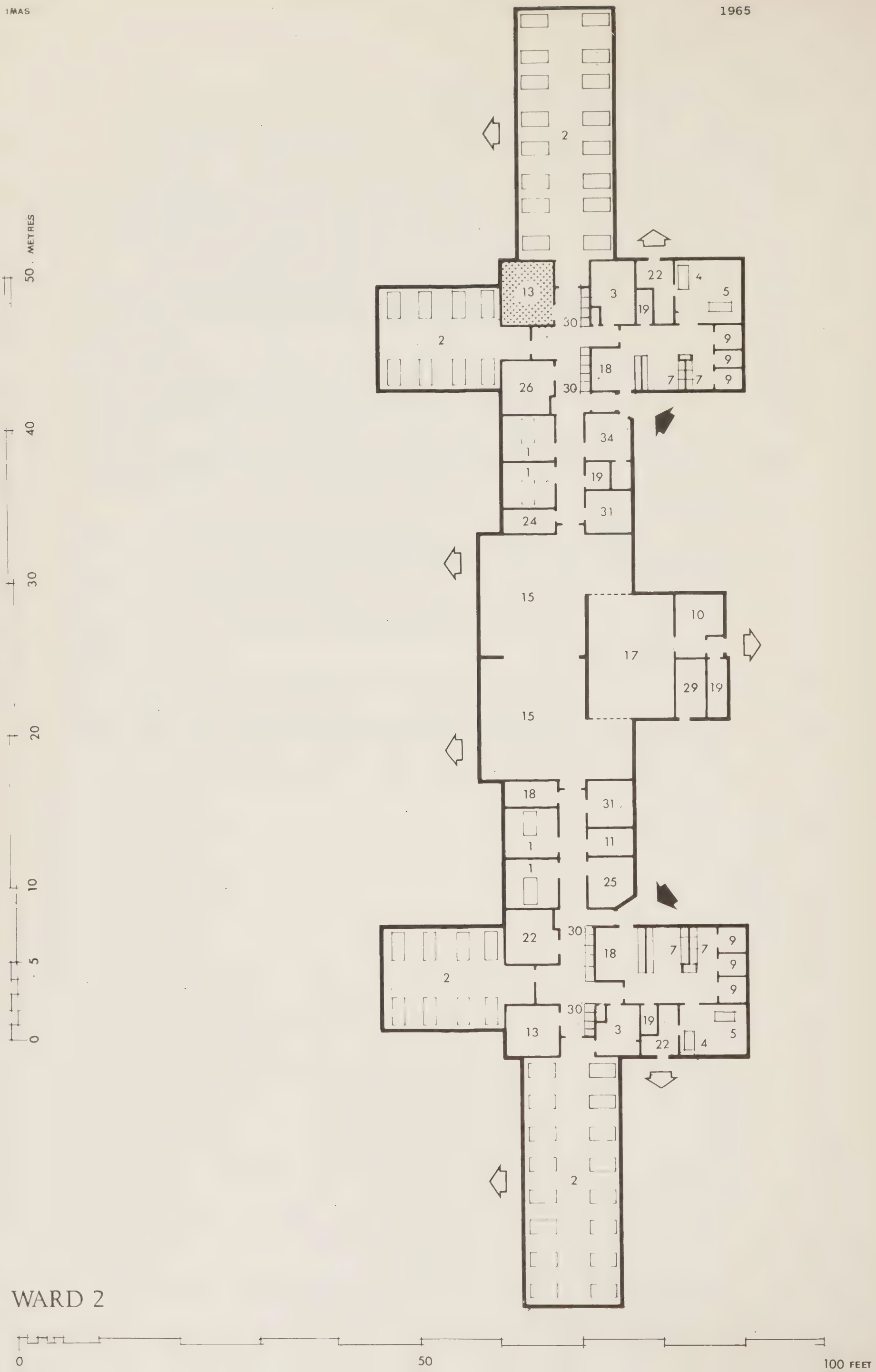
2 Noises and smells are restricted to small numbers of patients when beds are grouped in rooms.

3 The absence of glazing strips in the corridor walls of the dormitory area limited visual supervision by the nurse.

For the Nurse

1 As during the day, more rational storage of necessary equipment in a nurse working room would have facilitated nursing work.

2. The close physical link of the two 30-bed charges afforded improved nursing cover.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100 FEET

WARD 2

WARD 2 – 7 am – 1.30 pm

52 beds – single storey – single corridor design – 4 nurses (1 sister, 1 SEN, 1 pupil nurse and 1 nursing assistant) – 7 working girls (patients) – 52 adult female patients.

Patient Information

Mobility
3 bedfast
8 chairfast
41 ambulant (some required assistance or a walking aid)

Dressing
14 dressed themselves
5 dressed with help
33 dressed by attendant

Incontinence
26 continent
26 incontinent of urine and faeces

Nursing procedures
36 on oral medication
4 on parenteral medication
No technical nursing procedures

Occupation
None on day of survey

Feeding
32 fed themselves
3 fed with help
17 fed by attendant

Diet
All on ordinary diets

Factors affecting handling
Of 11 bed and chair patients
2 were heavy
4 were spastic
3 flaccid

Temperament
15 passive
30 alert
13 aggressive
9 self-destructive
(some patients included in more than one group)

Pattern of Activity

At one end of the ward unit, those patients capable of a degree of self-help including dressing themselves with assistance were accommodated in two large dormitories: these beds were vacated during the day. At the opposite end, the large dormitory was used by physically handicapped low grade patients. Most of these beds were vacated during the day but some patients remained. In the smaller dormitory at that end 6 low-grade, sick, bedfast patients received continuous nursing care. Single rooms in the unit were occupied by ambulant patients.

During the day, ambulant patients assembled in the large day area where they sat on chairs or remained in wheelchairs. This day area was planned originally as two areas divisible by a folding partition. Some patients, more active than others, walked or ran through the central area of the unit. At meal times most patients sat in the dining area and were served from the kitchen, others were fed in the day area. The dining area was planned to serve the original two units, each of 26 beds, and to do so in two sittings.

The ward was run as a single nursing charge, in general by job allocation, but nurses tended to work within defined areas of the unit. Duties were comparable as between one nurse and another and involved assisting patients to get up, to dress, to wash, to feed, to toilet and to proceed round the unit and to the day room. The seven working girls assisted in bed making and feeding patients. Afternoon activities included bathing and mending of clothes.

Comments on the plan are given as they affect the three main users, the patient, the nurse and the doctor.

For the Patient

1 Two distinct types of patient were accommodated in this 52-bed charge. One half of the day room was carpeted and attracted the more able patients, the other half attracted the less able patients. At times the more able tended to harass the others. The unit would have been better divided into two 26-bed charges, each having its own dining-room and day room.

2 The dining-room, designed to accommodate up to 26 patients, was generally crowded when in use because meals were served at one sitting.

3 The level of privacy and amenity afforded in the multi-bed dormitories was limited. Patients' clothing was sorted into individual patient bundles each evening, clean clothes being incorporated as required, and placed in the bedside locker. There were no bedside wardrobes.

4 Each bathroom had a domestic bath and a Thune hydraulic bath which was of help in bathing spastic patients. However the lack of a partition between the two baths limited patient privacy.

For the Nurse

1 The charge size constituted a very heavy nursing load and the mixing of patients with different abilities, inevitable with this size of charge, created friction. The nursing care required by a number of bedfast patients took precedence over the management of ambulant patients in the day area.

2 With meals served at one sitting the dining room was inadequate in size and this resulted in nurses having to feed patients in the day area; to do so, meals had to be carried through the already crowded dining-room from the servery.

3 The bath had no shower attachment for those patients who might have benefited by its use if given assistance. There was a need to rationalise storage facilities. A dressings trolley (36″ x 18″) would have provided the necessary laying surfaces for linen, clothing, ointments, powders and so on.

4 In nurse working rooms a number of cupboards and rooms were used for storage of items ranging from personal clothing to linen, towels and food. Grouping nurse working rooms in more direct relation to patient care areas would have been an improvement.

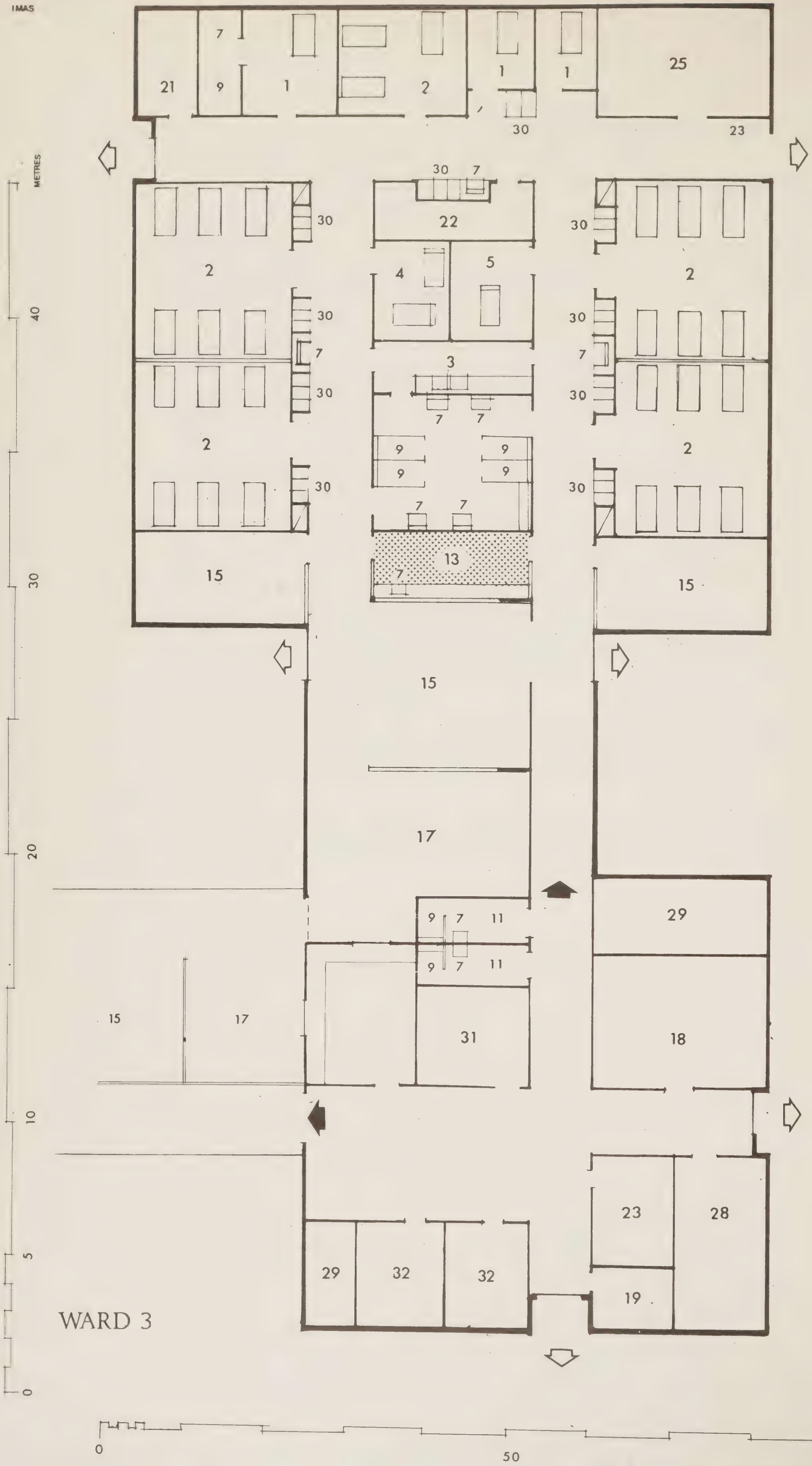
5 Storage for large items of equipment e.g. wheelchairs was very limited and, in relation to the point of use, was inconvenient.

6 At peak periods of use the two patient toilet areas were inadequate in number, and because of the close proximity of the wash basins to the W.C. compartments there was difficulty in accommodating and manipulating patients in wheelchairs.

For the Doctor

1 Consultation with nursing staff took place in Sister's Office where records were kept.

2 There were adequate facilities for examination and treatment of patients.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WARD 3

WARD 3 – 7 am – 12.30 pm

30 beds – single storey – deep plan design – 6 nurses (1 sister and 5 nursing assistants) – 30 male patients aged 16 to 75.

Patient Information

Mobility
2 bedfast
2 chairfast
26 ambulant (2 required walking aids)

Dressing
14 dressed themselves
14 dressed with help
2 dressed by attendant

Incontinence
16 continent
12 incontinent of urine
2 incontinent of urine and faeces

Nursing procedures
21 on oral medication

Occupation
11 played in the ward
2 had occupational therapy (duties involved limited assistance in ward work)
4 had industrial therapy in the hospital workshop

Feeding
17 fed themselves
8 fed with help
5 fed by attendant

Diet
23 ordinary diet
1 gastric
2 obesity
4 soft food

Factors affecting handling
1 heavy
3 spastic

Temperament
19 passive
7 alert
4 aggressive
2 self-destructive
(some patients included in more than one group)

Fits
4 had major fits frequently
2 had minor fits frequently

Pattern of Activity

Similar planning assumptions applied as in Ward 1. On the day of the survey 2 bedfast patients were accommodated in the dormitory nearest the nurses' duty room and received basic nursing care. A seriously ill patient requiring close observation was accommodated in one of the day rooms. Work was carried out by job allocation, cycles of activity similar to those described in Ward 1 took place, but most patients went to the W.C. of their own volition. Any who had been incontinent were taken to the toilet area, cleaned and changed.

No toilet routine was identified by the observers. One nurse was responsible for the patients in the large day room where 21 patients were shaved with an electric razor. The bed patient in the day room was bathed in bed and bedfast patients in the dormitory were bathed in the bathroom.

Comments on the plan are given as they affect the three main users, the patient, the nurse and the doctor.

For the Patient

1 The grouping of beds in 6-bed and single rooms afforded a high degree of privacy and amenity.

2 As in Ward 1 the siting of the wardrobes adjacent to the patients' beds would have been an advantage.

3 There were two bathrooms, one containing a domestic-type bath and a hip bath. The second bathroom had a hydraulic bath, unused because the patients in this ward did not require the facility. There were no showers. Access to the domestic-type bath for wheelchair and trolley patients was difficult because of the position of this bath in the room. The hip bath was virtually unused.

For the Nurse

1 Similar problems arose in relation to supervision as in Ward 1.

2 As in Ward 1 there was a need for rational organisation of storage of materials in a nurse working room.

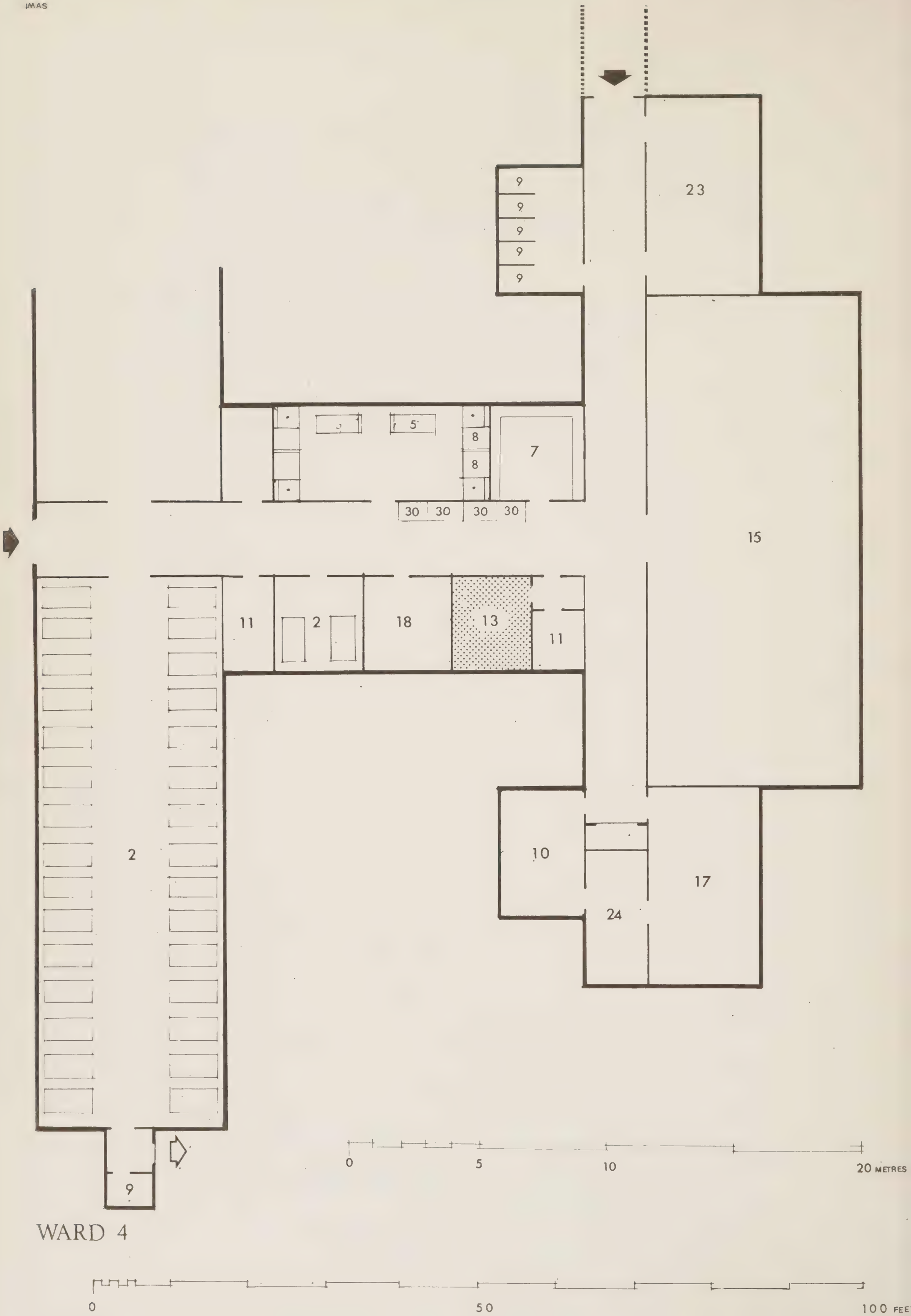
3 The arrangements for bathing patients were unsatisfactory (see sub-paragraph 3 above).

4 With the need for nurses to assist patients in the dining area this room was too small for the 24 patients eating there in one session. Three patients were fed in bed and 3 more were fed in the day room.

For the Doctor

1 Consultation with nursing staff took place in the nurses' duty room where records were kept.

2 There were adequate facilities for examination of patients.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WARD 4

WARD 4 – 7 am – 1 pm

32 beds – single storey building, (previously used as an obstetric ward) exceptionally large day room, open dormitory – 5 nurses (1 charge nurse, 2 nursing assistants and 2 pupil nurses on secondment) – 2 working patients – 32 male patients aged 8 to 26.

Patient Information

Mobility
7 bedfast
7 chairfast
18 ambulant

Dressing
5 dressed themselves
7 dressed with help
20 dressed by attendant

Incontinence
9 continent
23 incontinent of urine and faeces

Nursing procedures
24 on oral medication
none on injections
2 on treatments

Occupation
12 attended school (sensory training)

Feeding
13 fed themselves
1 fed with help
18 fed by spoon and attendant

Diet
28 ordinary diet
4 special soft diet

Factors affecting handling
17 spastic
none were heavy

Temperament
8 passive
23 alert (responded to noise)
8 aggressive
3 self-destructive
(some patients included in more than one group)

Pattern of Activity

Thirty patients were accommodated in an open dormitory and 2 older patients slept in a side room. These two areas were vacated during the day, the 7 bedfast children and those in chairs being moved to the day area where they spent their day grouped with the less able of the ambulant patients. The bedfast children received basic nursing care consisting of feeding, washing, dressing and changing. Two high grade working patients gave considerable assistance in dressing and feeding patients. Some patients were given breakfast in bed in the dormitory, but 14 of the ambulant patients had breakfast in the dining room, some with assistance. Following toileting and washing, the ambulant patients were taken to the day area in which the bedfast patients were then washed and changed and had beds made. Later in the morning 12 children were taken to the school for sensory training by school staff. Others were taken for a walk outside in wheelchairs by the pupil nurses. The unit was run as a single nursing charge. At night one nurse was on duty and because there was more than one entrance to the unit both were locked. The nurse was not relieved for meals.

Comments on the plan are given as they affect the three main users, the patient, the nurse and the doctor.

For the Patient

1 The bedfast patients required a considerable amount of nursing care, treatment and observation, and in a large nursing charge this resulted in the more able patient being less involved with nursing staff.

2 The separation by some distance of the washroom and the W.C. room which had no handwashing facilities posed problems for the wheelchair patients. There were no facilities for cleaning incontinent patients, other than the bathroom.

3 The large undivided day room offered little amenity to groups of patients with different characteristics and requirements. Day and dormitory accommodation with suitable room dividers, which facilitated supervision of all groups of patients during the day as well as at night, would be a considerable improvement.

For the Nurse

1 The charge size was too large. The arrangements whereby food was served from a trolley in the corridor to day area patients and subsequently in the kitchen to dining room patients were unsatisfactory. The dining room could not accommodate all those patients capable of using it and this resulted in the less able patients having breakfast in bed in the dormitory and lunch in the day area.

2 The siting of the W.C. room and washroom remote from each other, the day area and the dormitory, created a problem of patient management and care.

3 There was a need for a more rational arrangement of the nurse working rooms and for a system to be devised for disposal of soiled and fouled linen, and of disposables.

4 The arrangement whereby the night nurse, in order to be able to at least hear the patients in the main dormitory and the side room, had to sit in an open corridor was unsatisfactory.

5 A better selection of finishes in the day area would have reduced the excessive noise from radio and record player.

For the Doctor

In the duty room, facilities for discussions with nursing staff and attention to patients' records were adequate but the large day area was noisy and afforded no privacy for patient examination.

PART 3 : ANALYSIS AND CONCLUSIONS

3.1 The findings of these five studies highlight some of the problems inherent in caring for low-grade mental defective patients. Taking the findings together with the data from the patients surveyed, it has been possible to set out accommodation requirements and design criteria on which the planning of new building constructed for this type of patient can be based. While there are differences in the nursing dependencies as between child, adult male and adult female, (children being more handicapped than the adults surveyed) there are advantages in having a single design to meet the needs of all physically handicapped low-grade patients of the type surveyed. This would facilitate the provision of continuing care for these patients.

3.2 The three main users of acute ward units are patients, nurses and doctors.

In the studies undertaken, it was our opinion that the doctor's use of ward units for low grade mental defective patients was relatively small, but that the use made by auxiliary staff, including therapists and training staff, could be greater than in acute ward units. We think that if the requirements of the three main users are met, other users will find that theirs are satisfied. These basic requirements are set out below.

3.3 PATIENT'S REQUIREMENTS

An environment which will substitute for the home and which will provide an acceptable level of comfort, safety, observation, amenity and privacy.

3.3.1 The unit should have a domestic atmosphere and its design must foster good staff patient relationships. Sleeping accommodation should be divided into small areas in the form of rooms, not bays, and in this way problems of noise and smell, particularly at night, are restricted and the level of privacy significantly increased. Each patient should have his own storage for personal clothing and belongings. A number of single rooms (up to 20% of the beds) should be provided for patients who are suffering from infections, who are noisy, a problem at night or are moving towards a more independent existence.

3.3.2 Almost half the children and 4 out of 5 adults were ambulant, three-quarters of the children and a third of the adults were attention seeking, up to 1 in 6 of all patients were over active and half passive. With such a mixture of temperament and ability, there is need for divided day and dining accommodation to allow grouping of patients according to behaviour and ability. Design must cater for noisy and quiet, active and passive activities. Planning of day accommodation must allow for a full patient complement in the ward at weekends, on certain holidays, and in the evenings. With 1 in 5 of the children bedfast, and likely to remain so, the pressure on day space will apparently be less, but compensating factors include space required for the three-quarters who require assisted feeding and for play and training activities for the half who are ambulant, some of these with help.

3.3.3 Secure sheltered outdoor space directly related to the ward where patients can sit, play or exercise is essential. Single storey building is recommended.

Facilities for their human needs

3.3.4 Up to 4 out of 5 of the children were doubly incontinent by day and by night. A little over half of the children could not use an assisted W.C. and only 1 in 10 could wash their hands and faces. Space for changing doubly incontinent children and for washing their hands and faces is more important than the provision of a number of W.Cs. For those patients who can use them, the provision of assisted W.Cs. suitable for use by wheelchair patients both in relation to day areas and bed areas would facilitate training and therefore might reduce the level of incontinence. A special bathroom easily accessible from the day and the bed areas and equipped with facilities for cleansing the ambulant incontinent patient is essential. A number of ambulant patients could use a shower but an assisted bathroom is still necessary. In both cases a W.C. should be closely related.

Facilities for the diagnosis and treatment of their condition

3.3.5 The amount of medical diagnostic activity within the unit is likely to be small. Visual and auditory privacy is however necessary and while much of this need can be met by use of single bedrooms, an interview/examination room possibly serving up to 60 beds would be useful for the interviewing of patients and relatives by doctor, nurse, and auxiliary staff including psychologist. Nursing treatments can be given at the bedside or in the special bathroom as appropriate.

The reassurance of visual contact with nursing and medical staff

3.3.6 A compromise has to be struck between the need for visual supervision of patients by nursing staff and the patients' need for privacy. In some of the units studied, rooms were divided by half glazed partitions, the glazing being intended to facilitate observation. In practice this glazing significantly reduced privacy and allows light to penetrate from one room to another without control. An enclosed room with a continuous glazing strip across the full width of the corridor wall extending from 4ft 3in (1.30m) to 6ft (1.83m) above the floor gives effective visual control without undue exposure.

3.4 NURSING REQUIREMENTS

Observation of patients commensurate with their condition

3.4.1 We consider that 30 patients would constitute a reasonable charge for one ward sister. There may be advantages however in grouping two such independent charges together in such a way that certain facilities can be shared, but so designed that the whole area cannot be worked as a single charge. There might be advantage in the kitchen, some storage facilities, staff rooms and offices being shared, but the day and dining areas should be independent, and there must be separate patient circulation in the two charges.

3.4.2 The major problem of supervision will arise in the evenings, at weekends and holidays when the majority of patients will be living in the ward unit often with reduced staff. Day areas should be grouped around a nurses duty room. With 1 in 5 of the children and 1 in 10 of the adults bedfast and requiring general nursing care, the area in which these patients are accommodated should also relate to the duty room, and be easily supervised from it. The other beds should be grouped in such a way that they can be easily worked at night and while direct visual supervision of all beds may not be possible without walking round the unit, the duty room is the natural base for night staff who should be able to see at least some of the patients in bed. Supervision of sleeping areas can be achieved by having glazing strips along corridor walls. (See paragraph 3.3.6)

Provision of an effective nurse to nurse call system

3.4.3 With over one-third of patients described as aggressive, a nurse call system should be provided in bed areas to allow a nurse to call for help, particularly at night.

Facilities for the giving and receiving of reports and instructions, and maintaining records

3.4.4 In the nurses' duty room, patients' records are held and maintained, and consultation can take place between staff and doctors. The telephone will be sited in this room, which must be secure and closely related to preparation and disposal rooms. All ancillary rooms should be capable of being locked. With about one-third of patients described as attention seeking and up to 1 in 6 over active, a duty room is preferable to an open nurses' station.

Storage of items of equipment. Facilities for the preparation and carrying out of nursing activities, and for disposal of items used in patient care

3.4.5 Much effort is wasted by the dispersal of preparation and disposal facilities throughout the ward units – for example, linen, clothing, drugs, trolleys and materials for disposal are frequently stored in widely separated locations. For efficient working the preparation facilities should be grouped in one room as should disposal and sluice facilities, and these two rooms should be placed next to each other. With a topping up method of supply to ward units the quantity of stock held at unit level can be reduced.

3.4.6 For large items of equipment – prams, wheelchairs, walking aids, bed cradles, cot sides and elevators, a store is required which could serve two units each of up to 30 beds.

3.4.7 Ideally each unit should have its own kitchen, the size depending on whether there is a central dish-washing service and on the method of supply of food for patients. In practice the provision of one kitchen to serve two units is acceptable. Independent secure storage facilities for each unit are necessary in the kitchen.

Cloakroom facilities

3.4.8 A cloakroom and W.C. are required for staff. They should not interfere with the essential relationships of patient care areas and can be provided on the basis of one for two 30-bed units.

3.5 DOCTOR

Facilities for history taking, examination, diagnosis and treatment of patients, and for writing up case records

3.5.1 The doctor is responsible for the examination, diagnosis and treatment of the patients. For this he requires visual and auditory privacy in order to work effectively. Single bed rooms and an interview/examination room equipped with a couch will meet these requirements. The latter can also be used for assessment of patients by the psychologist, for interviewing of relatives by nurses and for other purposes; it does not require to be positioned at a central point in the unit and can be shared between two 30-bed units. Case records can be completed and stored in the nurses' duty room.

3.6 GENERAL CONSIDERATIONS

3.6.1 While it is hoped that a number of new buildings will be constructed for low-grade physically handicapped mental defectives and a schedule of accommodation (Part 4) and specimen layout plans (Appendix B) are included as guide material for this purpose, it is accepted that much of the hospital accommodation for this type of patient will be provided in existing buildings which are basically sound but which may be the subject of upgrading. The contents of Part 4 may again be of help for this purpose, although the amount of upgrading possible in relation to an individual project is likely to be governed by the finance available and for this reason alone it is worth considering the priorities which should be accorded to the application of planning principles.

3.6.2 For low-grade physically handicapped mental defective patients, the following priorities are suggested in upgrading of ward units:

1 the provision of appropriate W.C., washing and cleansing facilities for ambulant, wheelchair and bedfast patients

2 the grouping of both up and bedfast patients to facilitate observation by nurses who have ready access to day areas, to a nurses' duty room and to nurse working rooms. The resources of the unit can thus be most effectively deployed

3 the rational provision of nurse working rooms – preparation room, disposal/sluice room – related to the nurses' duty room

4 the improvement of the level of amenity for the patient in the form of adequate day areas to allow of noisy and quiet, active and passive, small group and large group activities; the division of sleeping accommodation into small groups, each bed having related personal storage and clothing facilities, and the provision of a secure outdoor day area easily accessible from the ward unit

5 the grouping of patients in charge sizes of realistic proportions – ideally 25, maximum 30 patients.

3.6.3 It is insufficient to consider in isolation physical upgrading of a given ward unit. Methods of use, of supply and the availability of individual items of equipment all influence the effectiveness of the function of the unit. Of great importance is the level of staffing which obtains within the unit. Where nurse staffing levels become unrealistically low there is a

tendency to establish a routine in the interests of patient supervision; this routine results in patients being cared for in large groups rather than individually, and there is a resultant overcrowding of particular areas of the unit, while others remain empty. With combined upgrading of both building and staff numbers, activity could be spread throughout the unit, the long periods of inactivity in the patient's life could be shortened, the time taken over meals lengthened, and the domestic atmosphere fostered.

PART 4 : SUMMARY OF ACCOMMODATION AND DESIGN REQUIREMENTS

The general design requirements and the schedule of accommodation which follows are intended as a guide for the planning of new buildings. For upgrading of existing buildings, it can be used as an indication of what should be provided bearing in mind the priorities set out in Part 3.

4.1 GENERAL DESIGN REQUIREMENT

Scale

4.1.1 The ward unit, being the patients' substitute home should be as homelike as possible and be designed to a domestic scale.

Finishes

4.1.2 All finishes should be warm, washable but durable.

4.1.3 Floor finishes are required to be both resilient and soft, e.g. plastic non-slip cushion floor. Washable carpet tiles should be considered in both the quiet day and bedroom areas.

Furnishing

4.1.4 Furnishings should in general be soft, spongeable and again durable, and also, as far as possible, fire resistant.

Acoustics

4.1.5 These patients are by nature noisy and in order to diminish stress on both patients and nursing staff, the use of sound absorptive finishes is recommended on ceilings throughout the unit and such floor areas as recommended in paragraph 4.1.3 above.

Out-door areas

4.1.6 An out-door area readily accessible from the day areas should be provided; it should be of sufficient dimensions to enable patients to exercise reasonably. Interests, i.e. outdoor play toys, rabbit hutches, etc. are considered essential and should be provided therein.

4.1.7 Day area windows should be located in relation to interesting views, or outside interests as above, in order to avoid any feeling of claustrophobic enclosure.

4.1.8 Out-door areas should be made secure in order to protect the 'wandering patient' and in addition provide shelter against cold winds.

Fire exits

4.1.9 Storage provision for wheelchairs, prams, etc. should be positioned in such a way as to enable fire exits at all times to be kept clear.

4.2 ACCOMMODATION FOR PATIENTS

4.2.1 Bedrooms

The number of beds in each room has an important bearing on the extent to which a domestic atmosphere can be created. With more than 6 beds this becomes increasingly difficult but nursing requirements make 6-bed groups appropriate e.g. for bedfast or very dependent patients.

Functions

1 sleeping accommodation for ambulant patients

2 total care for bedfast patients.

4.2.2 **Single bed rooms**

Size

In two rooms there must be sufficient space for two people to work on each side of the bed and clearance for trolleys at the foot of the bed (i.e. the room should measure at least 10 feet (3.05m) along the axis of the bed).

Area – 120 sq ft (11.15m^2) – inclusive of any built-in furniture.

In other single rooms the bed may be placed against a wall and the size reduced accordingly.

Area – 80 sq ft (7.43m^2) – inclusive of any built-in furniture.

4.2.3 **Multi-bed rooms**

Size

Bed centres should be 7 ft (2.134m) apart, room width should be approximately 20 ft (6.096m).

Curtain tracks should be provided in one room near to the nurses' duty room. Within these rooms a washhand basin should be provided for nurses. Each bed space should be provided with a wardrobe and a bedside locker or a combined wardrobe/bedside locker.

Area – 500 sq ft (46.45m^2) for a 6-bed room.

4.2.4 **W.Cs.**

Functions

1 normal use of W.C. for ambulant patients

2 assisted use with or without sani-chairs

3 toilet training.

Size

All W.C. doors and compartments should be wide and large enough for the entry of sani-chairs and for patients to be assisted, and should include hand-rinse basins.

Area – 30 sq ft (2.79m^2) for sani-chairs (with outward opening doors).

Scale of provision

To serve bed rooms

Two W.Cs. should be provided for every 12 beds: in addition the two larger single rooms should each have a W.C. for exclusive use of the patient, and 1 W.C. should be provided for use by patients in other single rooms.

To serve day areas

Two groups, each of 2 W.Cs., should be provided, and be easily accessible from the day areas and adjacent to the changing room.

4.2.5 **Washing compartments to open off multi-bed rooms**

Functions

1 for ambulant patients to wash, shave and wash their hair in privacy with or without assistance

2 for patients in wheelchairs to wash etc. with or without assistance.

Scale of provision

Washhand basins should be in separate compartments and be grouped with W.Cs.

Size

1 area 12 sq ft (1.11m^2) for a single basin

2 area 20 sq ft (1.86m^2) for a single basin plus wheelchair space.

Where there are 2 or more washhand basins together no more than half need have cubicles large enough for assisting a patient in a wheelchair. They may need to be mounted at various heights from the floor. Shelves should be provided for the storage of patients' toilet articles.

4.2.6 **Bathrooms and showers**

Functions

1 for ambulant patients to bath or shower

2 for patients to bath or shower with assistance.

Scale of provision

At least one bath for every 10 patients. One bath may be replaced by a shower. Steps leading to a raised landing should be provided on one side of each bath. All baths should be free standing, raised to save nurses from continually bending, and designed to facilitate access and use of an Ambulift. A W.C. should be included within each bath room, and be readily accessible from the showers.

Size

1 bathroom with free standing bath and W.C. – 100 sq ft ($9.29m^2$).

2 shower compartment (including the undressing and dressing area) – 30 sq ft ($2.79m^2$).

4.2.7 **Day areas for ambulant and wheelchair patients (including dining area)**

Function

To enable patients who are out of bed to sit, eat, rest, watch television, listen to radio, meet visitors, play games and undertake various activities. The range of activities is such that the day area should be divided into a number of areas and the activities grouped into noisy and quiet, active and passive, messy and clean, small group and large group. Experience suggests that day accommodation should be divided – but not with partition – into at least four areas, one of which would be used for dining with an allowance of 20 sq ft ($1.86m^2$) per patient. The use of stacking tables and chairs in the dining area will enable this area to be used in conjunction with the adjoining day space for recreation purposes.

Size

30 sq ft ($2.79m^2$) per bed is recommended, plus 20 sq ft ($1.86m^2$) per patient for dining, giving a total of 50 sq ft ($4.65m^2$) per patient.

Relationship with other areas

All day areas should be sited so that they may be readily supervised by nurses going about their normal duties. They should be grouped around a focal point – the nurses' duty room which should be so designed as to prevent interference with its contents by patients. The W.Cs. and washhand basins should be closely related to the day areas and should be suitable for use by ambulant patients and those in wheelchairs.

4.2.8 **Day area storage including cupboards**

Function

Storage of toys, games, Occupational Therapy material, record player etc.

Relationship with other areas

Cupboards to be related to day areas.

4.2.9 **Clothes and personal belongings storage**

Function

For the storage of patients' clothes and personal belongings the storage accommodation should preferably be close to the bed areas –

a dressing gown, slippers and night attire – at the bedside (in a fixed or movable bedside locker)

b day clothes – within a bedside wardrobe

c outdoor clothes and suitcase – with b or grouped in a store in the ward area

d personal belongings – in a or b.

Size – see Scottish Hospital Centre Information Sheet "Bedside Wardrobe".

4.2.10 **Changing room**

Function

1 changing into or out of outdoor clothing and footwear

2 drying of outdoor clothing and footwear

3 cleaning of shoes.

Size – 150 sq ft (13.94m^2).

Relationship with other areas

Outwith bed area: to be adjacent to patients' entrance.

4.3 ACCOMMODATION FOR FUNCTIONS DIRECTLY RELATED TO PATIENT CARE

4.3.1 **Preparation room**

Functions

This area is a nurse working room in which all items involved in the provision of patient care including linen, drugs, medicine etc. are stored.

Size – 180 sq ft (16.72m^2) – see Scottish Hospital Centre Information Sheet "Preparation room". While the range of materials to be stored will be less than in an acute ward unit, a greater quantity of linen will be necessary.

Relationship with other areas

This room should relate to the nurses' duty room and to the bed areas.

4.3.2 **Disposal/Sluice room**

Functions

This nurse working room is used for the collection and temporary storage of all items for disposal or return for reprocessing. It is used for the cleaning of trolleys, for the storage of clean bedpans, urinals and other containers for the disposal of offensive material. It is also used for the storage of specimens and the carrying out of simple tests.

Size – 120 sq ft (11.15m^2).

Relationships with other areas

This room should be sited adjacent to the preparation room and may communicate with it and the ward through a common door.

4.3.3 **Interview/Examination room**

Function

1 interviewing of relatives

2 interviewing, and examination or assessment of patients by doctor and psychologist.

Size – about 180 sq ft (16.72m^2).

Relationship with other areas

This room can serve the need of up to 60 beds (two nursing charges).

4.3.4 **Special bathroom**

Function

1 the cleansing of the ambulant incontinent patient

2 selected nurse patient treatments.

The room should be equipped with a hand-spray, a bidet having soil drainage and a couch with an attachment to facilitate the cleansing and re-dressing of the ambulant incontinent patient.

Size – 180 sq ft (16.72m^2).

Relationship with other areas

This room should be easily accessible from the day areas.

4.3.5 **Ward unit kitchen**

Function

1 serving of patients' meals

2 preparation of beverages

3 storage of meals for patients temporarily absent

4 storage of supplies required for beverages and snacks

5 storage of a supply of clean crockery and cutlery

6 occasional washing up of small amounts of crockery

7 the training of patients in simple domestic procedures.

In some of the ward units the incapacity of the patients may be such that only liquidised foods are used.

Size – 180 sq ft (16.72m^2) – serving two charges.

Relationship with other areas

The kitchen should relate directly with the dining areas and should serve the needs of two charges. The route between the point of delivery of the food trolleys and the ward kitchen should be short and without steps or steep gradients so that trolleys can be wheeled directly into and out of the ward kitchen.

4.3.6 **Nurses' duty room**

Function

1 receiving instructions and recording procedures on patients' records

2 communications and observation centre

3 consultation with medical and other staff.

Size – 120 sq ft (11.15m^2).

Relationship with other areas

The duty room forms the pivot between the day and the bed areas generally; however, only one 6-bed room needs to be directly supervisable from the duty room. The duty room, like the preparation, disposal etc. rooms should be centrally located within the ward unit.

4.4 **RELATED ACCOMMODATION**

4.4.1 **Staff cloakrooms and W.Cs.** (serving two charges)

Functions

1 cloakroom and W.Cs.(2) for female staff

2 cloakroom and W.C. for male staff

3 changing accommodation for non-resident staff is assumed to be provided centrally: unit cloakrooms need provide only for nurses' cloaks.

Size – 75 sq ft (6.97m^2) and 50 sq ft (4.65m^2) respectively (including lobby)

4.4.2 **Equipment store**

Function

Storage of bulky equipment and apparatus which is either too large or is not used often enough to justify storage in the preparation room (e.g. prams, chairs, bed cradles, splints, cot sides).

Size – 150 sq ft (13.94m^2).

This room should preferably be wide and shallow for ease of access to equipment.

4.4.3 **Wheelchair bay**

Function

Spaces for storage of wheelchairs, chairs and trolleys.

Size – 150 sq ft (13.94m^2) total.

4.4.4 **Domestic service room**

Functions

1 storage of domestic equipment required for cleaning and maintaining the unit

2 cleaning and minor servicing of this equipment.

Size – 80 sq ft (7.43m^2).

See Scottish Hospital Centre Information Sheet "Domestic service room".

One room will serve the needs of two nursing charges.

4.4.5 **Circulation space**

Function

Passage of people, trolleys, beds, etc.

Size

Width should allow for beds, trolleys etc. to pass – 8 feet (2.44m) clear width is recommended. Items such as hose reels and radiators should not intrude.

4.4.6 **Utility room** (shared with all ward units)

Function

1 washing, drying and ironing of patients' selected clothing

2 training of patients in simple domestic activities.

4.5 ENGINEERING SERVICES

4.5.1 Engineering services should be designed and installed to ensure ease of maintenance and the minimum interruption of services and disturbance to the working of the ward unit while repairs and maintenance are carried out. Special care should be taken to avoid features which might cause injury to patients.

4.5.2 Ward units will be designed so that bed areas and most other rooms can be naturally ventilated, and during daylight hours reliance can be placed mainly on natural lighting; mechanical ventilation will be restricted to a few rooms. In placing service outlets, user requirements and working arrangements should be carefully considered.

4.5.3 The need for adequate fire protection of the building should be taken into consideration in the design of engineering services, especially ventilation schemes. Due regard should therefore be given to these requirements in the early stages of design.

Heating and ventilating

4.5.4 The layout of the building has a direct bearing on the design of engineering services, particularly the heating or cooling and ventilation required.

4.5.5 A linear layout is normally naturally ventilated except for some rooms which may need extract ventilation, whereas deep plans give rise to engineering problems in ventilating and heating/cooling, the solution of which demands a different approach.

4.5.6 The following table gives the recommended heating design temperature and rates of ventilation based on an outside temperature of 30°F (−1°C).

Accommodation	Temperature	Air change/hr
Bedrooms and day areas, bathrooms	70°F (21°C)	3
Patients' lavatories, changing room, staff cloakroom and W.Cs.	65°F (18°C)	3
Nurses' duty room, corridors, wheelchair bay, utility room, interview/examination room, preparation room	65°F (18°C)	2
Disposal/sluice room	60°F (16°C)	5
Ward unit kitchen	60°F (16°C)	2
Equipment store, domestic service room	50°F (10°C)	½

4.5.7 A conventional hot water heating system with radiators or recessed convectors provides a generally satisfactory form of heating. Radiators and convectors should be placed below windows and against exposed walls to counteract cold air currents, and should have sufficient clear space beneath to facilitate floor cleaning by machines. Hot water radiators and pipes installed in areas used by patients need to be provided with guards, as some patients may have defective sensations of heat and could be injured by hot surfaces. Guarding of radiators and pipe work, however, is often unsightly and requires more cleaning and maintenance, and for this reason convectors are preferable in these areas; pipe work being concealed where practical.

4.5.8 Mechanical extract at high level to outside should be provided in the ward unit kitchen; it should also be provided in the disposal/sluice room but at low level. Mechanical extract may also be required in the two single-bed rooms with attached toilet compartments. Day areas where adequate air changes are required without having to open windows, will require mechanical ventilation. Internal rooms, e.g. the changing room, should be mechanically ventilated to suit their individual requirements.

4.5.9 Because of the heavy demand of habit training, patients' toilet areas require a good level of extract ventilation, and for all W.Cs. where they are situated internally, mechanical extract ventilation is necessary. External discharges should be protected against back pressure from the wind. Air inlet grills are necessary where the ventilation is mechanical extract only.

Hot and cold water and drinking water services

4.5.10 Hot water storage capacity should be based on meeting the maximum requirements for 2 hours, and the calorifier battery rating should be based on a 3–4 hour recovery period, having regard also to the heat losses from the mains. The cold water storage should be sufficient for 24 hours demand, or as required by the local water authority. Drinking water points will be required, e.g. in the kitchen and near the medicine cupboard in the preparation room, and should be connected directly to the local water authority mains. Baths and washhand basins for patients should be fitted with both quick fill and emptying fittings. The temperature of baths and showers should be controlled by thermostatic valves so as to ensure that the maximum recommended water temperature cannot be exceeded.

(a) **Bath**

Temperature for adults	112°F (44°C) maximum
Temperature for children	100°F (38°C) maximum

(b) **Showers** 100°F (38°C) maximum

The water supply for washhand basins should be maintained at a moderate temperature.

4.5.11 The taps for patients' washhand basins should be wrist operated lever arm taps having a mixed flow outlet, but in some cases (where it is necessary for training purposes etc.) they may be normal pillar taps.

Gas

4.5.12 Gas points should be regarded as a potential hazard and only provided where a gas supply is essential. A gas service may be required in the kitchen. Any gas appliances should have flame failure safety devices.

Piped oxygen and suction

4.5.13 Piped oxygen and suction will not normally be required.

Electrical installation

4.5.14 The electrical installation will include wiring and equipment for general and special lighting, socket outlets, emergency electric services, fire alarms, heating, ventilating, telephones, clock system and bell push system for external doors. In areas to which patients have access special consideration must be given to safety in the selection and positioning of electrical fittings, accessories, equipment and appliances.

4.5.15 The electrical supply will normally be provided by a sub-mains circuit from the nearest distribution centre. Local distribution boards should be conveniently positioned, locked where necessary to prevent unauthorised interference, and should be freely accessible to maintenance staff at all times without causing any inconvenience to the work of staff generally. They should be sited to minimise the length of circuit wiring and should be easily reached from a standing position, preferebly accessible from corridors. HRC fuses are recommended, and adequate provision made for spare ways and fuses.

4.5.16 Conduits and cables should be concealed, service ducts being provided wherever applicable and the external wiring either plastic-coated cables in galvanised screwed conduit or MIMS cables.

Artificial lighting

4.5.17 Room dimensions, ceiling heights and varying functions influence the choice of artificial lighting and fittings, but normally in accommodation of this nature lighting should follow standard modern practice. Tungsten lighting is generally suitable for lighting fittings which will be used intermittently. Fluorescent lighting will be economic where lighting is required for long periods. Fittings should obviate glare, and not be dust-collecting and should be readily accessible for cleaning and maintenance. Night lighting should give only enough illumination for nurses to observe patients and to avoid obstacles.

4.5.18 The following table gives recommended values of general illuminations for various rooms.

Accommodation	**Average illumination recommended at working level**	
	lumens/sq ft	*lux*
Preparation room	20	215
Day areas, disposal/sluice, interview/examination, and nurses' duty rooms	15	161
Bedrooms (no bedhead lighting), kitchen, changing room, circulation space	10	107
Trolley and chair bay, bathrooms and W.Cs., domestic service room, store rooms	7	54

4.5.19 The avoidance of glare is important and a glare index of not more than 13 is recommended. All lights should be screened from the beds and no part of the lighting fitting or mirrored reflection visible to any patient in bed should have a luminance of more than 300-foot lambert (1000cd/m^2) [200–foot lambert (700cd/m^2) for recessed ceiling-mounted fittings] nor should the luminance on the ceiling or wall from wall-mounted fittings exceed 50–foot lambert (170cd/m^2) for the general lighting, nor 1–foot lambert (3.4cd/m^2) for the night lighting. These restrictions should be applied also to lighting in corridors, circulation space, etc.

4.5.20 An illumination of three lumens per sq ft (32 lux) should be adequate for night lighting the nurse's desk in the duty room provided that the nurse does not have frequently to enter ancillary rooms lighted to higher standards of illumination. A table lamp is not recommended for the nurse's desk.

4.5.21 The switching for the ward lighting, which may include separate or two-way and off switches for the low intensity night lighting, should be grouped together in a lockable cupboard outside the bed areas, usually the nurses' duty room.

External lighting

4.5.22 Suitable lighting should be provided in any internal courtyards.

Mains voltage power points

4.5.23 Ring main circuits serving 13-amp shutter type switch sockets should be provided on the scale set out in the following table:–

Single bed rooms	1 twin point
Multi-bed rooms	1 single point shared between two beds plus 1 point for general use
Day areas	1 single point for each of the areas, plus 1 point for TV
Preparation room	1 twin point
Disposal/sluice	1 point
Nurses' duty room	1 twin point
Kitchen	2 points (in addition to those required for fixed appliances)
Interview/examination room	1 twin point
Corridors	points to be provided to allow for the convenient use of domestic cleaning appliances having a flexible lead assumed to be 30 ft (9.14m) long.

4.5.24 In order to reduce interference by patients, the socket outlets are usually placed at high level out of easy reach, but where this is not possible and there is the likelihood of tampering or damage, locked cupboards may be necessary. Socket outlets at high level introduces other hazards and this should be taken into consideration when determining the position of the outlet. Non-luminous heating appliances should have a neon indicating light to show when they are in use; the light may be in either the appliance socket outlet or plug-top.

Emergency electric supplies

4.5.25 Guidance on the provision of emergency electric supplies is given in Hospital Technical Memorandum No. 11, Emergency Electrical Services.

4.5.26 Emergency lighting grade (b) to about half the normal standard should be provided in the general working areas to enable essential activities to be carried on, and skeleton lighting provided for corridors and any staircases to allow the essential movement of staff and patients with reasonable safety.

4.5.27 Battery operated lanterns should be provided for use in general nursing areas which have no installed emergency lighting.

4.5.28 Socket outlets supplied from the emergency electrical services will not normally be necessary.

Telephones

4.5.29 Telephone facilities for internal and external calls for the ward unit will form part of the hospital telephone system and will normally be provided in the nurses' duty room. The telephone should normally be desk pattern, and should be fitted with an indicating call light visible from the corridor and a bell of subdued tone which, when desired, could be switched out of circuit independent of the call light.

Electric clocks

4.5.30 An electric clock will normally be required in the day and dining area; the location should, if possible, be visible from the nurses' duty room.

Staff location system

4.5.31 A radio carrier system should be provided as part of the general staff location system of the hospital. See Hospital Technical Memorandum No. 20, Staff Location Systems.

Radio and television

4.5.32 Radio in day rooms should be from loud speakers, incorporating a programme selector, on/off switch and a volume control, connected to a central system. Television aerial sockets connected to a communal aerial by the amplifier set should be provided in all day rooms. Sets should, where practicable, be mounted so that patients cannot readily interfere with them and for a central radio system the loud speakers should be at high level and have a pre-set volume control. It is also advisable to fit a suitable guard to the TV set controls.

SURVEY OF SELECTED WARD UNITS IN MENTAL DEFICIENCY HOSPITALS IN SCOTLAND

SPECIMEN QUESTIONNAIRE

1	Patient								
2	Age								
3	(a)	Ambulant							
	(b)	Ambulant with help							
	(c)	Chair fast							
	(d)	Bed fast							
4	(a)	Wets by day							
	(b)	Soils by day							
	(c)	Wets by night							
	(d)	Soils by night							
	(e)	Cannot use assisted W.C.							
5	(a)	Feeds self							
	(b)	Feeds self with help							
	(c)	Requires feeding							
6	(a)	Dresses self							
	(b)	Dresses self with help							
	(c)	Requires dressing							
7	Washes hands and face								
8	(a)	Attends school/sensory training							
	(b)	Attends O.T.							
	(c)	Attends I.T.							
9	(a)	Occupation in ward							
	(b)	Works in ward (own or other)							
10	Regular medication								
11	Fits – major –	daily							
		frequently							
		rarely							
	– minor –	daily							
		frequently							
		rarely							
12	Temperament –	passive							
		alert							
		aggressive							
		self destructive							
		attention seeking							
		over-active							
		problem at night							
13	Chair/bed fast only –	heavy							
		spasticity							
		flaccidity							
14	Blind or partially sighted								
15	Deaf or hard of hearing								

SURVEY OF SELECTED WARD UNITS IN MENTAL DEFICIENCY HOSPITALS IN SCOTLAND

INSTRUCTIONS FOR COMPLETING QUESTIONNAIRE

These instructions are designed to help when completing the accompanying questionnaire.

In recent months a team at the Scottish Hospital Centre has been undertaking studies in ward units for low-grade physically handicapped mental defective patients both adult and child in hospitals in Scotland. It is hoped that in due course this work will lead to a set of recommendations on which planning of units of accommodation for these patients may be based.

Before proceeding further, information is required on nursing and other characteristics of the patients involved. The questionnaire is intended to meet that need.

Page One

1 Name of hospital
2 Name or number of ward unit
3 Bed complement
4 Sex of patient

Page Two

1 Please allot patients successive numbers. No names are required

2 Age – in full years – if an infant under one year enter e.g. 9/12 (9 months)

3 a – ambulant means that the patient can walk without any support
  b – ambulant with help – help might involve one or more nurses, a walking aid, sticks or crutches

4 a – d – tick as appropriate. If incontinence occurs frequently but not invariably please tick. If incontinence is rare, please leave blank
  e – assume the availability of assisted W.Cs. with access for wheelchair and attendant, washhand basin and handrail

5 b – feeds self with help, e.g. food needs to be cut up, some encouragement needed, may occasionally need to be fed

6 b – dresses self with help – laces, stockings etc.

7 If a patient can be trusted to wash hands and face without supervision

8 Refers to 'out of ward unit' activities

9 a – any activity inside the unit except domestic work

11 Frequency means less than daily but more than weekly. Rarely means less that once a week

12 Tick any category that is applicable. One patient may have several entries

13 This question relates to degrees of spasticity and flaccidity causing problems in nursing, not to a medical diagnosis and are not exclusive, i.e. a patient may be heavy and spastic

14 In answer to this question please enter
  1 if the patient is blind, or
  2 if the patient is partially sighted, and leave blank if sight is satisfactory. If glasses are worn ignore the improvement due to those

15 With this question please enter
  1 if the patient is very deaf,
  2 if the patient is hard of hearing, and leave blank if hearing is satisfactory. If a hearing aid is worn please ignore the improvement due to this.

SUMMARY OF DATA COLLECTED

1 The survey covered 17 hospitals having more than 100 beds for mentally defective patients, and information was obtained from 89 ward units.

2 The units included in the study were those for low grade patients of whom not less than 10%, in addition to mental handicap, had some degree of physical handicap.

3 A small number of completed forms were rejected following examination where less than 10% of the patients were included under at least 2 of the following 5 headings –

1 Inability to walk unaided

2 Incontinence by day or night

3 Inability to feed independently

4 Inability to dress independently

5 Inability to wash his/her own hands and face

4 The material finally included in the survey related to 82 ward units involving 3208 patients

Ages of patients

5 This section relates only to 3192 patients, as the ages of a small group (16) were unknown to the hospitals.

Table A

Age	Mixed Wards		Male Wards		Female Wards		Total	
	No.	%	No.	%	No.	%	No.	%
0 – 5	73	14.2	33	2.5	32	2.3	138	4.3
6 – 15	351	67.9	163	12.6	117	8.4	631	19.8
16 – 25	53	10.2	305	23.6	263	19.3	621	19.4
26 – 35	12	2.3	240	18.6	205	14.9	457	14.3
36 – 45	9	1.7	188	14.5	245	17.7	442	13.8
46 – 55	14	2.7	175	13.5	210	15.2	399	12.5
56 – 65	5	1.0	148	11.4	165	11.9	318	10.0
66 – 75			40	3.1	111	8.1	151	4.8
76 – 85			3	0.2	29	2.0	32	1.0
86+					3	0.2	3	0.1
TOTAL	517	100.0	1295	100.0	1380	100.0	3192	100.0

Table B

Percentage of Patients 66 years and over		
	19 male ward units	20 female ward units
less than 5%	11	5
” ” 10%	6	6
” ” 20%	2	3
” ” 30%		2
” ” 40%		2
” ” 50%		1
” ” 60%		1

Nursing dependency characteristics

6 The information in the following tables has been divided as follows:–

1 Total for all ward units

2 Units containing 18–41 patients – those containing mostly patients aged 15 years and under, and those mostly adult patients sub-divided by sex, and including two mixed ward units

3 Units containing 42–65 patients – presented as in 2 but there are no mixed adult ward units in this group

4 Information relating to geriatric patients is presented separately in three groups – aged 66–75 years; 76–85 years; 86 years and over

Each group is sub-divided into male and female except the last group which contains only female

5 Information relating to the distribution of paediatric patients is also presented separately

Table 1

AMBULATION

	ALL WARD UNITS		WARD UNITS WITH 18–41 PATIENTS								WARD UNITS WITH 42–65 PATIENTS					
			0–15		AGE 16+						0–15		AGE 16+			
			Mixed		Male		Female		Mixed		Mixed		Male		Female	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Ambulant	2194	68.4	247	44.8	427	80.0	246	63.2	31	47.0	56	36.1	519	82.6	668	75.6
Ambulant with help	363	11.3	47	8.5	33	6.2	77	19.8	11	16.7	24	15.5	50	8.0	121	13.7
Chairfast	406	12.7	135	24.5	41	7.6	48	12.4	18	27.2	33	21.3	49	7.8	81	9.2
Bedfast	245	7.6	122	22.0	33	6.2	18	4.6	6	9.1	42	27.1	10	1.6	14	1.5

Observations

1 Number of children chair and bedfast – few of these are infants

2 High level of ability among adults in larger ward units

Table 2

INCONTINENCE

	ALL WARD UNITS		WARD UNITS WITH 18–41 PATIENTS								WARD UNITS WITH 42–65 PATIENTS					
			0–15		AGE 16+						0–15		AGE 16+			
			Mixed		Male		Female		Mixed		Mixed		Male		Female	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Wets by day	1289	40.1	408	73.9	148	27.7	161	41.3	31	46.9	133	85.8	147	23.4	261	29.5
Soils by day	1154	35.9	398	72.1	127	23.7	123	31.6	31	46.9	135	87.1	127	20.2	213	24.1
Wets by night	1475	45.6	448	81.1	205	38.3	166	42.6	31	46.9	144	92.9	182	28.9	299	39.8
Soils by night	1266	39.4	443	80.2	144	26.9	135	34.7	30	45.4	144	92.9	140	22.2	232	26.0
Cannot use assisted W.C.	689	21.4	296	53.8	77	14.4	54	13.8	25	37.8	118	76.1	54	8.5	65	7.3

Observations

An assisted W.C. consists of a compartment, capable of taking a wheel or sani chair and an attendant, hand rails, and a hand-rinse basin. The compartment should have an outward opening door

Table 3

FEEDING

	ALL WARD UNITS		WARD UNITS WITH 18–41 PATIENTS								WARD UNITS WITH 42–65 PATIENTS					
			0–15		AGE 16+						0–15		AGE 16+			
			Mixed		Male		Female		Mixed		Mixed		Male		Female	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Feeds self	2011	62.7	145	26.3	393	73.6	252	64.8	24	36.4	33	21.3	524	83.4	640	72.4
Feeds self with help	351	10.9	64	11.6	55	10.3	62	15.9	14	21.2	9	5.8	38	6.1	109	12.3
Requires feeding	846	26.4	343	62.1	86	16.1	75	19.3	28	42.4	113	72.9	66	10.5	135	15.3

Observations

1 High proportion of children requiring feeding

2 "Help" can vary from cutting up food to part feeding

Table 4

DRESSING

	ALL WARD UNITS		WARD UNITS WITH 18–41 PATIENTS								WARD UNITS WITH 42–65 PATIENTS					
			0–15		AGE 16+						0–15		AGE 16+			
			Mixed		Male		Female		Mixed		Mixed		Male		Female	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Dresses self	1199	37.4	61	11.1	248	46.5	117	30.1	21	31.8	2	1.3	363	57.8	387	43.8
Dresses self with help	631	19.7	48	8.7	139	26.0	100	25.7	4	6.1	15	9.7	116	18.5	209	23.6
Requires dressing	1378	42.9	443	80.2	147	27.5	172	44.2	41	62.1	138	89.0	149	23.7	288	32.6

Observations

Fairly high number in all categories require dressing – this in association with physical handicap becomes very time-consuming

Table 5

WASHING

	ALL WARD UNITS		WARD UNITS WITH 18–41 PATIENTS								WARD UNITS WITH 42–65 PATIENTS					
			0–15		AGE 16+						0–15		AGE 16+			
			Mixed		Male		Female		Mixed		Mixed		Male		Female	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Can wash hands and face unaided	1222	38.1	50	9.1	231	43.2	163	41.9	21	31.8	1	0.7	355	56.5	401	45.3

Observations

Very few children – even in older age group – can be trusted or are capable of doing this

Table 6

OUT OF WARD ACTIVITIES

	ALL WARD UNITS		WARD UNITS WITH 18–41 PATIENTS								WARD UNITS WITH 42–65 PATIENTS					
			0–15		AGE 16+						0–15		AGE 16+			
			Mixed		Male		Female		Mixed		Mixed		Male		Female	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
School/sensory training	373	11.6	113	20.4	65	12.1	45	11.5	17	25.7	26	16.7	17	2.7	90	10.1
Occupational therapy	244	7.6	3	0.9	54	10.1	45	11.5	1	1.5	–	–	86	13.6	53	5.9
Industrial therapy	211	6.8	–	–	69	12.9	44	11.3	16	24.5	–	–	33	5.2	49	5.5

Observations

1 Even amongst the less physically handicapped adults the numbers leaving the ward unit are small

2 Many of the adult patients take part in more than one of the above activities

Table 7

OTHER ACTIVITIES

	ALL WARD UNITS		WARD UNITS WITH 18–41 PATIENTS								WARD UNITS WITH 42–65 PATIENTS					
			0–15		AGE 16+						0–15		AGE 16+			
			Mixed		Male		Female		Mixed		Mixed		Male		Female	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Occupation in ward	261	8.1	24	4.3	93	17.4	41	10.5	4	6.1	13	8.3	38	6.1	48	5.4
Works in ward (own or other)	426	13.2	22	3.9	63	11.7	41	10.5	8	12.2	–	–	145	23.1	147	16.4

Observations

Domestic work does not appear to be of any great significance in this group of patients, except for males in the larger ward units

Table 8

REGULAR MEDICATION

	ALL WARD UNITS		WARD UNITS WITH 18–41 PATIENTS								WARD UNITS WITH 42–65 PATIENTS					
			0–15		AGE 16+						0–15		AGE 16+			
			Mixed		Male		Female		Mixed		Mixed		Male		Female	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
	1926	60.1	315	57.1	269	50.3	273	70.2	47	71.2	84	54.1	344	54.7	594	64.9

Observations

Note the higher incidence of medication in female ward units

Table 9

FITS

	ALL WARD UNITS		WARD UNITS WITH 18–41 PATIENTS								WARD UNITS WITH 42–65 PATIENTS					
			0–15		AGE 16+						0–15		AGE 16+			
			Mixed		Male		Female		Mixed		Mixed		Male		Female	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Major–daily	15	0.5	5	0.9	3	0.5	6	1.5	–	–	–	–	1	0.2	–	–
–frequently	184	5.7	39	7.1	34	6.3	21	5.3	3	4.5	19	12.2	44	7.0	24	2.7
–rarely	617	19.2	131	23.7	73	13.6	70	17.9	15	22.7	35	22.5	127	20.2	166	18.7
Minor–daily	19	0.6	3	0.5	10	1.8	2	0.5	–	–	1	0.7	1	0.3	2	0.2
–frequently	140	4.3	52	9.4	14	2.6	18	4.6	3	4.5	6	3.8	30	4.7	17	1.9
–rarely	431	13.4	55	9.9	53	9.9	55	14.1	10	15.1	28	18.1	93	14.8	137	15.4

Observations

1 'Frequently' was defined as less than daily, but more than weekly. 'Rarely' was defined as less than once a week

2 Although epilepsy is put forward as a major problem, this does not appear to be borne out in the children's ward units

Table 10

TEMPERAMENT

	ALL WARD UNITS		WARD UNITS WITH 18–41 PATIENTS								WARD UNITS WITH 42–65 PATIENTS					
			0–15		AGE 16+						0–15		AGE 16+			
			Mixed		Male		Female		Mixed		Mixed		Male		Female	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Passive	519	47.03	240	43.4	256	47.9	138	35.4	32	48.4	72	40.6	323	51.4	458	51.8
Alert	171	36.5	205	37.1	215	40.2	114	29.3	27	40.9	76	49.3	225	35.8	312	35.2
Aggressive	838	26.1	89	16.1	136	25.4	141	36.2	20	30.6	25	16.1	153	27.6	274	30.9
Self-destructive	402	12.5	44	7.9	60	11.2	83	21.3	10	15.1	20	12.9	71	11.3	114	12.8
Attention seeking	720	22.4	127	23.0	120	22.4	118	30.3	21	31.8	22	14.1	110	17.6	202	22.8
Over-active	378	11.7	76	13.7	89	16.6	63	16.1	15	22.7	13	8.3	43	6.8	79	8.9
Problem at night	292	9.1	41	7.4	40	7.5	65	16.7	10	15.1	23	14.7	54	8.5	59	6.4

Observations

These classifications are obviously subjective, as they were answered by different staff, but in ward units which were similar in other respects there was a similarity in the response to this question.

Table 11

WEIGHT

These figures relate only to those patients classified as chair or bed-fast, and the totals in each group are at the head of each column.

	ALL WARD UNITS		WARD UNITS WITH 18–41 PATIENTS								WARD UNITS WITH 42–65 PATIENTS					
			0–15		AGE 16+						0–15		AGE 16+			
			Mixed		Male		Female		Mixed		Mixed		Male		Female	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
	651		258		74		66		24		75		59		95	
Heavy	198	30.4	62	24.0	20	27.0	27	40.9	8	33.3	25	33.3	35	59.3	21	22.1
Spasticity	429	65.9	138	53.4	56	75.6	47	71.2	18	75.0	46	61.3	58	98.3	66	69.4
Flaccidity	95	14.5	49	19.0	6	8.1	9	13.6	3	12.5	10	13.3	4	6.7	14	14.7

Table 12

SIGHT AND HEARING

It was intended to sub-divide each of these headings into those who were blind or partially sighted; and those who were deaf or hard of hearing. This proved to be impractical so these figures relate to all known degrees of loss of vision or hearing.

	ALL WARD UNITS		WARD UNITS WITH 18–41 PATIENTS								WARD UNITS WITH 42–65 PATIENTS					
			0–15		AGE 16+						0–15		AGE 16+			
			Mixed		Male		Female		Mixed		Mixed		Male		Female	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Visual defect	352	10.9	77	13.9	35	6.5	71	18.2	15	22.7	33	21.2	50	7.7	71	8.0
Hearing defect	149	4.6	33	5.9	10	1.8	35	9.0	2	3.1	4	2.5	16	2.5	49	5.5

Table 13

INFORMATION RELATING TO GERIATRIC PATIENTS

		66–75 years				76–86 years				86+ years	
1	Age										
2	Sex	Male		Female		Male		Female		Female	
		No.	%	No.	%	No.	%	No.	%	No.	%
	Patient numbers	40		111		3		29		3	
3	(a) Ambulant	35	87.5	74	66.6	1	33.3	16	55.1	1	33.3
	(b) Ambulant with help	4	10.0	27	24.3	2	66.7	11	37.9	2	66.7
	(c) Chair fast	1	2.5	9	8.1			1	3.5		
	(d) Bed fast			1	1.0			1	3.5		
4	(a) Wets by day	5	12.5	26	23.4	1	33.3	9	31.0	1	33.3
	(b) Soils by day	3	7.5	19	17.1	1	33.3	8	27.5	1	33.3
	(c) Wets by night	6	15.0	26	23.4	1	33.3	11	37.9	1	33.3
	(d) Soils by night	3	7.5	21	18.9	1	33.3	10	34.5	1	33.3
	(e) Cannot use assisted W.C.	2	5.0	1	1.0			1	3.5	1	33.3
5	(a) Feeds self	38	95.0	92	82.9	2	66.7	20	69.0	2	66.7
	(b) Feeds self with help	1	2.5	14	12.6	1	33.3	6	20.7	1	33.3
	(c) Requires feeding	1	2.5	5	4.5			3	10.3		
6	(a) Dresses self	29	72.5	61	55.0	2	66.7	9	31.0	2	66.7
	(b) Dresses self with help	9	22.5	33	29.7			10	34.5		
	(c) Requires dressing	2	5.0	17	15.3	1	33.3	10	34.5	1	33.3
7	Washes hands and face	28	70.0	59	53.1	2	66.7	12	41.3	2	66.7
8	(a) Attends school/sensory training			4	3.6						
	(b) Attends O.T.	4	10.0	4	3.6	1	33.3	1	3.5		
	(c) Attends I.T.	7	17.5	3	2.7						
9	(a) Occupation in ward	7	17.5	5	4.5	2	66.6				
	(b) Works in ward (own or other)	11	27.5	13	11.7			4	13.8		
10	Regular medication	14	35.0	51	45.9			17	58.5	1	33.3
11	Fits – major – daily										
	frequently			2	1.8			1	3.5	1	33.3
	rarely	4	10.0	12	10.8			1	3.5	1	33.3
	minor – daily										
	frequently										
	rarely	7	17.5	9	8.1			1	3.5	1	33.3
12	Temperament – passive	28	70.0	68	61.3	1	33.3	16	55.1	1	33.3
	alert	18	45.0	53	47.8	2	66.7	10	34.4	2	66.7
	aggressive	4	10.0	21	18.9			7	24.1		
	self-destructive	2	5.0	8	7.2			4	13.7		
	attention-seeking	4	10.0	22	19.8			11	37.9	1	33.3
	over-active			8	7.2			1	3.5		
	problem at night			4	3.6						
13	Chair/bed fast only –										
	heavy			1	10.0			1	50.0		
	spasticity			4	40.0			1	50.0		
	flaccidity	1	100.0								
14	Blind or partially sighted	2	5.0	19	17.1			5	17.2		
15	Deaf or hard of hearing	2	5.0	14	12.6	1	33.3	8	27.5		

Observations

1 186 patients were aged 66 and over – the eldest being 88 years of age

2 The distribution of these patients was as follows

43 patients were in 19 of the 32 male ward units
143 patients were in 20 of the 34 female ward units

Table 14

PAEDIATRIC PATIENTS

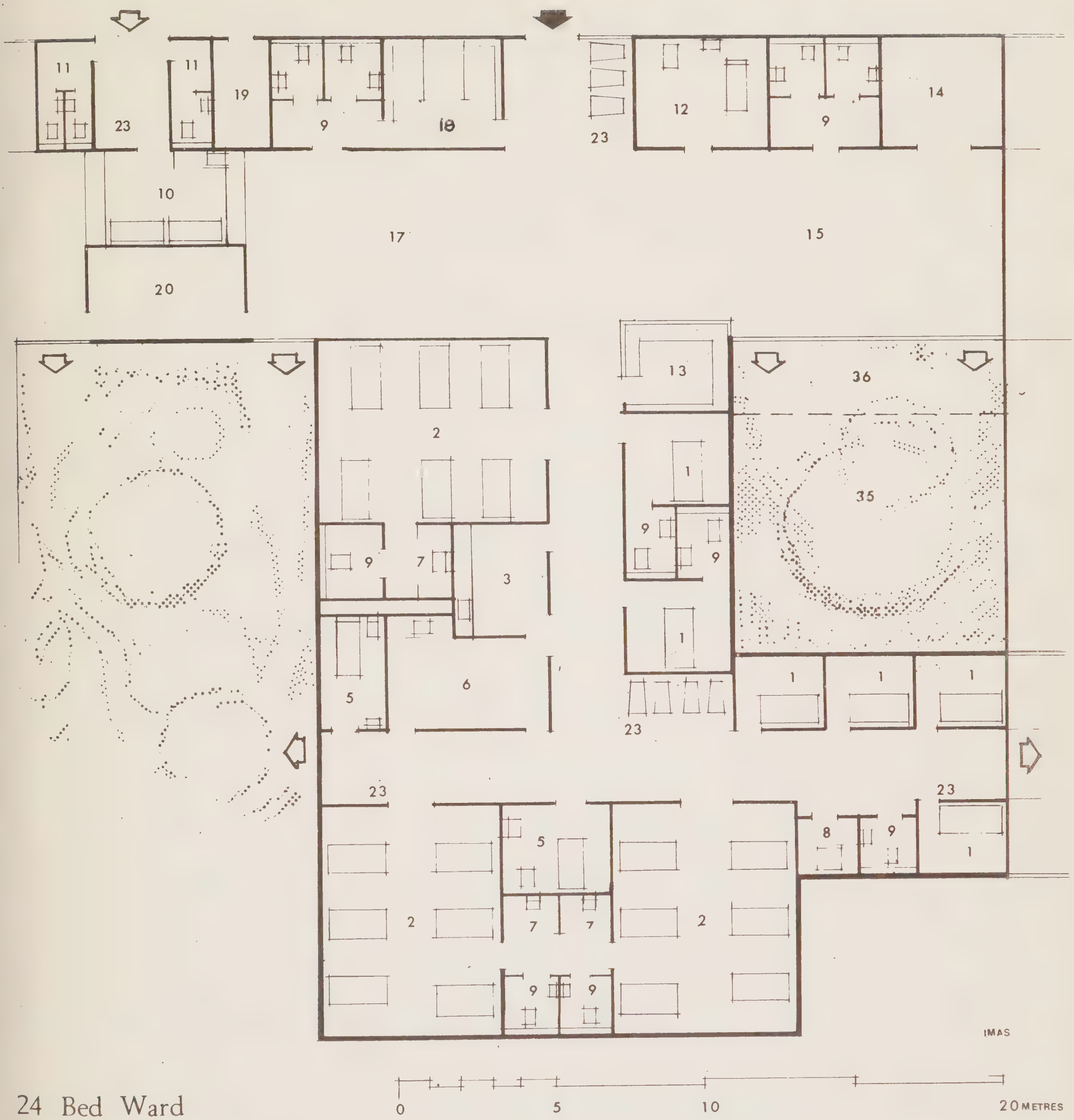
769 patients were aged 15 years and under, and of these 138 were under 6 years of age

The distribution of these patients was as follows:
424 patients were in all 16 mixed ward units
196 patients were in 14 of 32 male ward units
149 patients were in 16 of 34 female ward units

99 children were in units which were predominantly adult, the widest age differences being in one unit where there were patients in every group up to and including 56–65, and one where there were patients in every group except 0–5

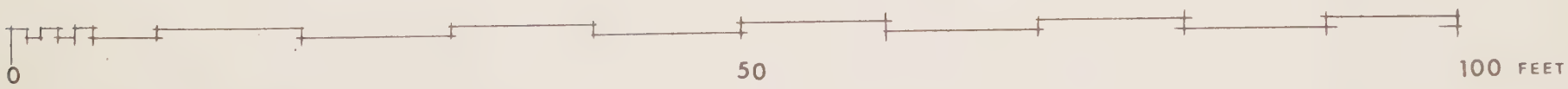
	MIXED		MALE		FEMALE	
	0–5	6–15	0–5	6–15	0–5	6–15
Less than 5%	3		1	4		7
” ” 10%				1	1	2
” ” 20%	3		1	3	1	1
” ” 30%	2	1		1	1	
” ” 40%	1		1		1	
” ” 50%			1			2
” ” 60%				1		
” ” 70%		2		1		1
” ” 80%		3		1		3
” ” 90%		3		1		
More ” 90%		6		1		

PROPOSED LAYOUT



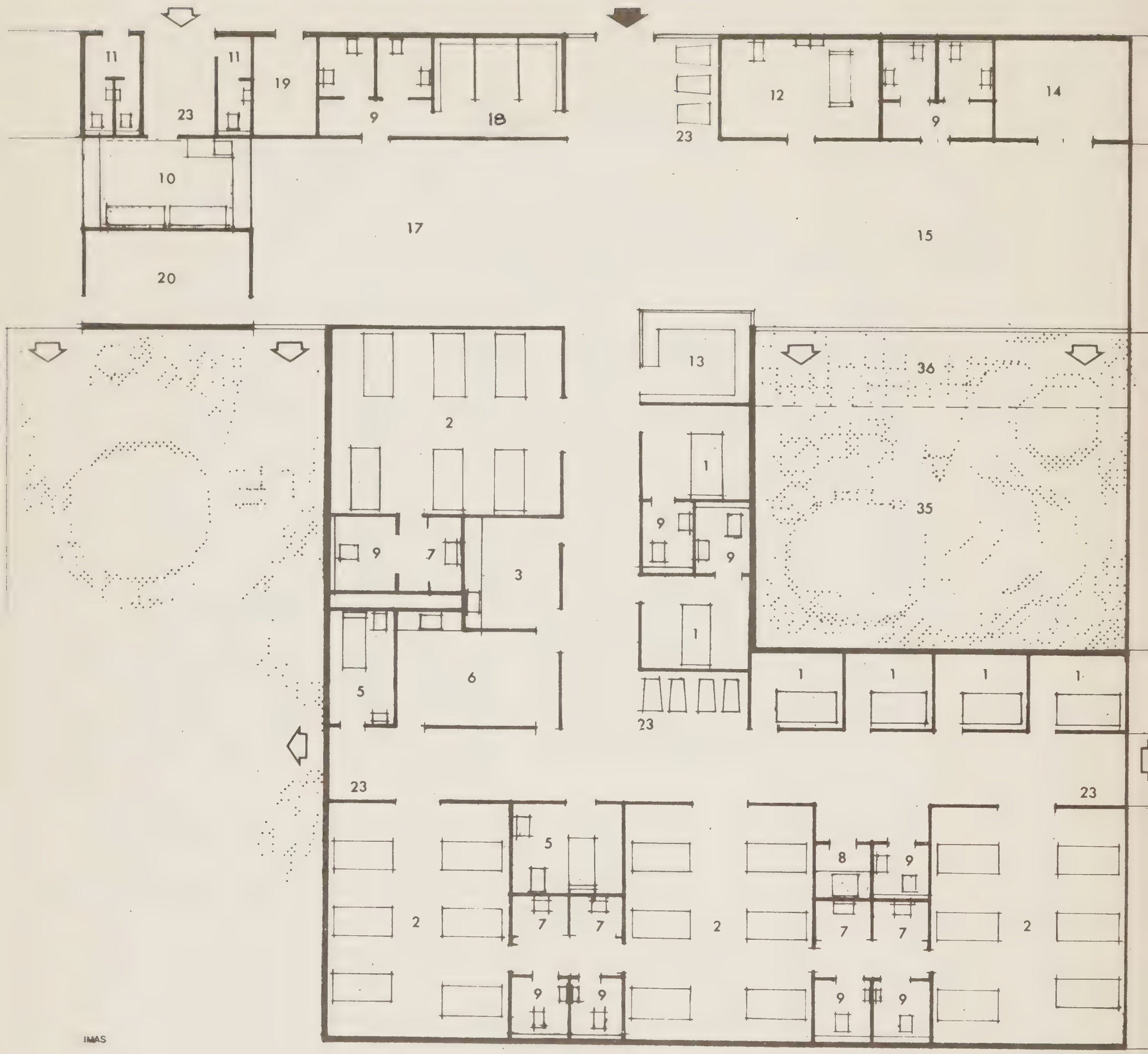
24 Bed Ward

(Appendix B: Annex 1)

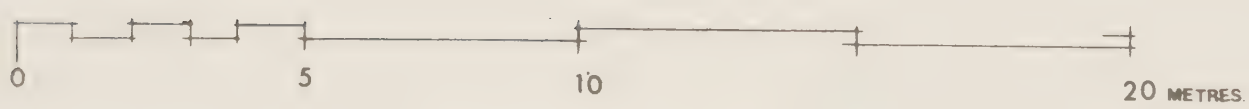


PROPOSED LAYOUT

1971

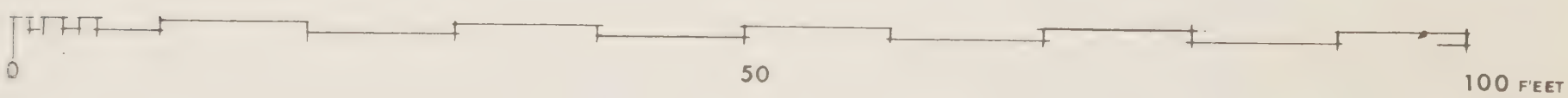


IMAS



.30 Bed Ward

(Appendix B : Annex 2)



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APPENDIX D

1 Single bed room
2 Multi-bed room
3 Disposal/Sluice room
4 Bath
5 Bath (free standing)
6 Preparation room
7 Washbasin
8 Shower
9 W.C.
10 Kitchen
11 Staff cloaks/W.C. and hand basin
12 Special bathroom/cleansing area
13 Duty room
14 Equipment store
15 Day area
16 Quiet area
17 Dining area
18 Changing room: Patients out-door clothing
19 D.S.R.
20 Interview/examination room
21 Utility room
22 Linen store
23 Wheelchair/trolley storage
24 Larder/Pantry
25 Treatment room
26 Sister
27 Staff room
28 Dirty linen storage
29 Switch gear/calorifiers etc.
30 Patients lockers
31 Patients clothing store
32 Office (admin.)
33 Play therapy
34 Visitors room
35 Patio
36 Covered area